

## PATENT ABSTRACTS OF JAPAN

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## (54) SWITCHING REGULATOR

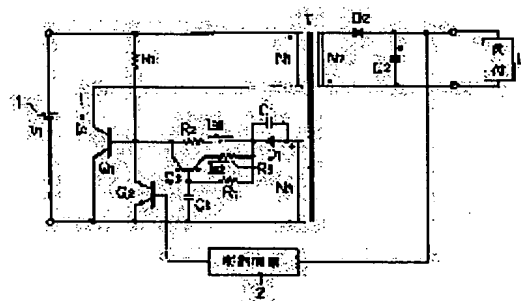
## (57)Abstract:

PURPOSE: To improve an efficiency by a method wherein the base current of a switching transistor is reduced when a load is light or when an input voltage is elevated.

CONSTITUTION: When a load is heavy or when an input voltage is low, the ON-period of a switching transistor Q1 is prolonged. After a required lapse of time, a transistor Q3 is turned on by the rise of the charge voltage of a capacitor C1. Therefore, the summation of a base current IB2 through a second base resistance R3 and a base current IB1 through a base resistance R2 is supplied to the base of the switching transistor Q1.

When the load is light or when the input voltage is high, the ON-period of the switching transistor Q1 is shortened. In this state, a period while the transistor Q3 is turned on by the charge of the capacitor C1 is shorter than the ON-period of the switching transistor Q1.

Therefore, the transistor Q3 is not turned on and only the base current IB1 through the base resistance R2 is supplied.



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